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CropWatch No. 97-9, May 16,1997

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CROP WATCH

University of Nebraska Cooperative Extension
Institute of Agriculture and Natural Resources

No. 97-9
May 16, 1997

Record-setting lows hit emerging crops

While some Nebraska producers are planting their soybeans and sorghum, others are checking their seedling crops for frost damage from this week's record-breaking lows. Still others are concerned about the lack of moisture and some have started their pivots to aid crop emergence.

Preliminary assessments indicate scattered frost damage throughout much of the state late last week and Monday night, with more low's predicted for Wednesday night (*see stories on page 72*).

Most of the state's corn has been planted and counties report as much as 30% emergence. It should not be severely affected by this week's temperatures since the growing point is still below ground.

Dave Wysong, Extension plant pathologist, said this year's frost may be different from that in 1992 which was followed by six to eight days of cold, wet weather.

"That's when we saw some bacterial soft rot developing from the "toasted" leaf tissue working downward into the crowns," he said. "If late week and weekend temperatures are more "normal" following Wednesday night's predicted freeze, there should be little if any problem, diseasewise."

Bob Wright, entomologist at the South Central R&E Center, notes that the potential for seed and seedling damage from insects may increase as cool temperatures slow growth and seeds and seedlings remain vulnerable longer.

In terms of insect management, there are no effective post-emergence treatments for these seed and seedling insects, Wright said. Depending on severity, replanting is the only alternative. For more information, see NebGuide G1023, *Insects Pests of Seeds and Seedlings.*

While most of the state's soybean crop has not emerged, the frost killed some of what had emerged.

"Soybean growing points are in the top bud of the seedling and are very susceptible to frost," said Roger Elmore, Extension Cropping

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No-tilling row crops into alfalfa

Many alfalfa stands in northeast Nebraska suffered severe winter damage, and producers are considering killing the remaining alfalfa with herbicides and planting corn or soybean no-till. A "normal" approach for the transition from alfalfa to no-till row crop would involve killing the alfalfa the previous fall with 2,4-D or 2,4-D + Banvel. The herbicide residue in the soil would dissipate prior to spring planting. At this late date there isn't time to allow the alfalfa to develop 3-4 inches of growth, treat with 2,4-D or Banvel and wait three weeks for more of the herbicide to dissipate before planting.

A potential approach would be to plant corn but not soybean into the uncontrolled alfalfa, wait for the corn to reach the spike stage and treat with Banvel or Clarity at 1 pt per acre to control the alfalfa. The Banvel will also control emerged broadleaf weeds and provide two to three weeks control of germinating weeds. Roundup could also be used prior to corn or soybean emergence for alfalfa control but it is less effective than Banvel.

It is important not to damage the alfalfa foliage with other herbicides or nitrogen solution prior to applying the alfalfa control treatment, or alfalfa control will be reduced. A preemergence grass herbicide could be applied before annual grasses emerge without damaging alfalfa.

Alex Martin
Extension Weeds Specialist
John McNamara, Extension Assistant, Weed Science

UNIVERSITY OF NEBRASKA-LINCOLN, COOPERATING WITH THE COUNTIES AND THE U.S. DEPARTMENT OF AGRICULTURE

Field updates

Dick Ronnenkamp, Extension Educator in Boone/Nance counties: Many producers have completed corn planting, and corn is starting to emerge. Most corn was planted during a one-week period. Cool nights continue to keep soil temperatures down. Soil moisture is a concern. Most of the wheat looks either really good or really bad. Most of the bad has been disked up and will be planted to corn, beans or milo.

Ralph Anderson, Extension Educator in Buffalo County: Corn planting is 95% complete in the Platte River Valley and 75% complete in the rest of the county. Most soybeans will be planted by the end of this week unless rain intervenes. Many producers will start planting milo soon, unless we have another very cool spell.

Gary Hall, Extension Educator in Phelps and Gosper counties: Some wheat is jointed and in good condition. There's very little wheat disease at this time. Planting of corn and soybeans is just about complete in both counties. Soil moisture is becoming a concern. One producer started a pivot to get the crop up and going. Stand quality is a concern. We are watching the fields that have been in the ground for a long time.

Keith Glewen, Extension Educator in Saunders County: As of Wednesday, with more frosts predicted for tonight, all early planted soybeans that had emerged prior to Monday night were killed by the frost. Speciality crops including watermelons and cucurbits also were destroyed. Most of our corn was planted and about 30% had emerged. There was widespread damage from the frost, however we assume damage to corn will be minimal assuming temperatures warm up. Frost damage was scattered, depending on location and lay of the land. While temperatures continue to be fairly low for planting, moisture for germination is available now and producers worry that if they wait, moisture may not be as available.

Kansas Department of Agriculture, Plant Protection & Weed Control Section: Wheat disease pressure increased during the past two weeks. Some fields had severe viral infection while tan spot and speckled leaf blotch increased in other fields. Leaf rust in wheat was found at low to trace levels in central and south central Kansas.

Frost

(Continued from page 69)

Systems Specialist at the South Central R&E Center. "Wait a few days after a frost and watch carefully for regrowth before replanting. Any viable bud on the main stem above the ground can produce a stem."

Bruce Anderson, Extension Forage Specialist, said frost damage to alfalfa is likely temporary. "In most cases, plants will grow out of it."

Seedlings generally are a little better able to tolerate these low temperatures, he said.

Some plants may need to initiate new growth because the growing point was injured. In some cases yield or quality of the first alfalfa cutting may be affected.

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Lisa Brown Jasa, Editor

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Will dry weather limit weed control?

Preemergence herbicide may "reach back"

Preemergence herbicides applied to the soil surface need rainfall or sprinkler irrigation for activation. A delay between herbicide application and rain does not markedly reduce herbicide performance unless weeds have emerged before the rain. Herbicides incorporated into the soil by tillage do not require rainfall to move them into the zone of weed seed germination, but their performance is greatest under good soil moisture.

Weeds which have emerged in an area treated with either a surface-applied or incorporated herbicide is cause for concern. Some, but not all, herbicides have "reach back" activity and often control **small** emerged weeds after an "activating" rain. The key word is "small", meaning weeds less than 1 inch tall. Generally a rainfall event of 1 inch or more is required for "reach back" activity on fine textured soils.

Control of emerged weeds taller than 1 inch due to "reach back" activity is inconsistent and should not be counted on. As weeds grow in height their root systems penetrate deeper in the soil and beyond the "reach" of herbicides. Healthy weeds that exceed 1 inch in height have probably escaped a soil applied herbicide. Consider alternate control methods.

Shoot absorbed herbicides have minimal "reach back" activity while most root absorbed herbicides tend to have some "reach back" activity. Many herbicide mixtures contain both a root and a shoot absorbed herbicide. In these cases "reach back" activity is limited to the weeds sensitive to the root absorbed herbicide.

"Reach back" activity is influenced by amount of rainfall, soil properties, weed size, herbicide characteristics, and herbicide rate. The table estimates "reach back" activity of some common herbicides on fine textured soil following a 1-inch rain on weeds no more than 1 inch tall.

Herbicide	*"Reach back" activity*
Atrazine	Broadleaf, some grass
Bicep	Broadleaf, some grass
Bladex	Broadleaf & grass
Broadstrike + Dual	Broadleaf
Bullet	Broadleaf some grass
Canopy	Broadleaf
Command	Broadleaf & grass
Commence	Broadleaf
Contour	Broadleaf
Detail	Broadleaf
Double Play	Grass
Dual	_____
Eradicane	Grass
Extrazine	Broadleaf & grass
Frontier	_____
Guardsman	Broadleaf some grass
Harness	_____
Harness Xtra	Broadleaf some grass
Hornet	Broadleaf
Lariat	Broadleaf some grass
Lasso	_____
Lexone	Broadleaf
Lorox	Broadleaf
Partner	_____
Prowl	_____
Pursuit	Broadleaf
Pursuit Plus	Broadleaf
Ramrod	_____
Ramrod + Atrazine	Broadleaf, some grass
Scepter	Broadleaf
Sencor	Broadleaf
Sonalan	_____
Squadron	Broadleaf
Steel	Broadleaf
Surpass	_____
Surpass 100	Broadleaf, some grass
Sutan	_____
Topnotch	_____
Treflan	_____
Turbo	Broadleaf

Alex Martin
Extension Weeds Specialist
John McNamara
Extension Assistant, Weed Science

Most crops spared by unusual lows

Record to near record lows have been recorded consistently during the last two weeks as the state has been dominated by an upper air pattern typical of late winter. Early morning temperatures dipped to the mid 20s in several areas. Cold high pressure systems from southern Canada have been crossing the state every two to three days.

This below normal temperature trend has been prevalent for the last six weeks across eastern Nebraska. Temperatures across western Nebraska have been closer to normal; however they have suffered some damaging lows as well. The overall temperature trend across the state remains consistent with long range outlooks calling for below normal temperatures throughout the growing season.

Although cold damp conditions delayed the onset of corn planting, the recent dry stretch of weather has allowed producers to make rapid planting progress. As of May 11, farmers have planted 70% of the corn acreage, ahead of the five-year average of 55%, but behind last year when 74% of the acreage was planted at this time. Only 6% of the crop has emerged compared to the five-year average of 12%.

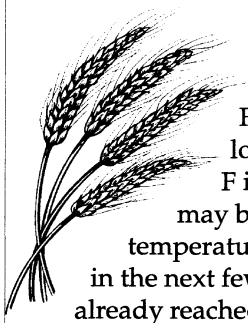
Cool, wet conditions have kept the northeast from progressing as much with corn planting. Warmer weather is needed to speed up corn emergence that is being delayed by colder than normal soil temperatures. The southwest and western south central district continue to experience drier than normal conditions. Irrigators are applying water to germinate and establish corn stands. Some dryland producers are delaying corn planting until needed moisture arrives.

Soybean planting has begun, but cool soil temperatures are delaying significant field work. Soil temperatures are running 5-10 degrees lower than the recommended 60-65 F threshold for soybean planting. Producers need to decide if planting soybeans in soils that are below the recommended threshold is worth the increased risk of disease and poor stand emergence.

Producers can expect a continuation of the current weather pattern for at least the next 10 days. Forecasts indicate below normal temperatures and normal to above normal precipitation can be expected across eastern Nebraska. Western Nebraska should experience normal to below normal temperatures and precipitation.

Al Dutcher, State Meteorologist
Agricultural Meteorology

Some wheat may be injured



Recent cold temperatures may have affected Nebraska's winter wheat crop, depending on the length of low temperature.

The low temperature in Sidney was 24 F reported at 5 and 6 a.m. Friday. Other low temperatures included 22 F in Potter, 23 F in Kimball and 26 F in Lodgepole. Wheat may be damaged as a result of these cold temperatures. Farmers should watch for symptoms in the next few days, especially in wheat which had already reached the jointing stage.

Sometimes the temperature within the growing wheat is higher than the recorded air temperature. Temperatures also can vary depending on the landscape. Low areas tend to be colder than higher areas within a field.

Growth stage of the state's winter wheat is quite varied, depending on when it was planted last fall and where it is located. If the wheat plants are in the tillering stage, only leaf tissue will be affected by the recent cold and there is little reason for concern. However, if the plants are in the jointing stage, damage to the elongating stem and the embryonic head may occur. In some cases, the wheat reached the jointing stage last week. Farmers should check these fields for symptoms of freeze damage in the next few days.

Freeze damage symptoms include: leaf yellowing, burning of leaf tips, silage odor, and a blue cast to fields. Damage also may appear in the growing point if jointing has occurred. A healthy growing point is bright yellow-green and turgid. Freeze injury causes it to become white or brown and water-soaked in appearance.This injury can occur even in plants that appear otherwise normal because the growing point is more sensitive to cold than other plant parts. To check the growing point split the stem at the site of the head with a razor blade.

Stem growth stops immediately when the growing point is injured, but growth from later tillers may obscure damage. Partial injury at this stage may cause a mixture of normal tillers and late tillers and result in uneven maturity and some decrease in grain yield. Injury to the lower stems in the form of discoloration, roughness, lesions, splitting, collapse of internodes, and enlargement of nodes frequently occurs at the jointing stage after freezing. Injured plants often break over at the affected areas of the lower stem so that one or two internodes are parallel to the soil surface.

For more information on the effects of cold temperatures on winter wheat, see Cooperative Extension publication, *Freeze Injury to Nebraska Wheat*, EC 94-132.

Karen DeBoer, Extension Educator, Cheyenne County
Drew Lyon, Extension Dryland Crops Specialist
Panhandle R&E Center

To disk or not to disk ...

Avoid disking to rectify wet, problem soils

Some Nebraska producers are disking wet soils to dry them out. Others are running their center pivots to water corn that was planted into dry, disked fields. While the disk is the basic tillage tool for most Nebraska producers, they need to look at what the disk is actually doing in the field.

The disk reduces residue cover and opens up the soil to dry; however, it sacrifices soil structure in doing so. That's why construction crews use a heavy disk when building a new road. This is also why the disk is a popular tillage tool for incorporation. The fluffing and mixing action of the disk breaking up soil structure incorporates applied pesticides and/or fertilizers in the soil to about one-half of the tillage depth. Unfortunately, the same incorporation buries surface residue needed for erosion control on highly erodible fields. This fluffing drys the soil, often to the depth of tillage, making a loose soil which may be more prone to erosion. After disking, producers use secondary tillage and press wheels on their planting equipment to firm up the soil to get a good seedbed.

Even if it looks like rain is coming or irrigation is available, disking a wet soil is not recommended because that is the number one cause of soil compaction. The rolling weight of the disk is carried on its blades, compacting the soil just below the depth of disking. This makes a "disk pan" which restricts root growth and water movement into the soil. As a result, wet spots which were disked to dry out become more of a problem spot because less water can soak in next time it rains and the soil itself has no structure to support traffic. In addition, the loosened soil without residue to protect it is likely to crust, further reducing infiltration.

Producers who have switched to no-till or ridge till report that soil structure starts building when they stop destroying it with tillage. After a couple of years, infiltration improves and wet spots tend to firm up and disappear. Rutting during wet harvests also tends to disappear, however, producers who till may still have ruts that are roughly as deep as their tillage.

When in the Montreal area a couple of years ago to conduct a ridge tillage and planter clinic, I had the opportunity to visit with producers who farmed on the poorly drained St. Lawrence Seaway bottom ground. They reported that no one in the bottoms owned a disk because they learned years ago, that if you are concerned about compaction, you don't use a disk. I feel that the same is true for Nebraska producers, particularly with wet soils.

The disk can be an excellent incorporation tool and weed control implement, but its use needs to be properly managed to reduce the negative impacts on soil structure and surface residue. Producers need to look at why they are tilling and then select the tillage tool to achieve their goals.

Paul Jasa
Extension Engineer

Extension offers field scout training sessions

Three one-day Integrated Pest Management Field Scout Training sessions will be offered May 20-22. Programs will vary by site.

May 20: Mead

The first session will be May 20 from 8 a.m. to 4:30 p.m. at the Research and Education Building at the Agriucltural Research and Development Center near Mead. Growth and development of corn and soybeans, insect pest and weed identification, and practical scouting methods will be covered. Worker Protection Pesticide Handler Safety Training also will be an important part of the session. Worker Protection Standard safety cards will be issued to those attending. This session is most appropriate for first-year scouts.

Cost is $20 and includes lunch and training materials. To register by phone, call 402-624-8030.

May 21: North Platte

May 22: Kearney

The second session will be May 21 at the West Central Research and Extension Center, south of North Platte and the third program will be May 22 in the Buffalo County Extension Complex at the fairgrounds in Kearney. These meetings will begin at 8 am and end at 4 pm.

These meetings will provide an opportunity to introduce summer field scouts, farmers and anyone checking field crops to the various pest situations for Nebraska.

Classroom and hands-on instruction in identification of weed, insect and disease pests found in field corn, alfalfa and sunflowers will be covered. Pests of soybeans will be included at Kearney and pests of field beans will be discussed at North Platte. Recognition of

(Continued on page 75)

With cool moist soils, treat soybean seed

If weather patterns indicate the continuance of scattered showers and below normal temperatures, soybean producers will want to consider seed treatments, at least for early planted beans or in areas of heavy residue from previous crops. Cool, wet soil increases germination time, which allows fungi more opportunity to colonize seeds or young seedlings.

Many products are available for either application on-farm or by commercial seed treaters. Choose a seed treatment should be made with the "target" pathogen or pathogens in mind. Typically, these are either the water molds (so called because they produce a swimming spore when soil flooding occurs) or other soil- or seed-borne fungi. The water molds include *Pythium* and *Phytophthora* species. The other fungi are mainly *Rhyzoctonia, Fusarium, Phomopsis,* and *Macrophomina* species.

Water molds produce a soft rotting of the seed before or after germination of the seed or after germination but before emergence. They also cause damping-off of young seedlings shortly after emergence. With damping-off, a dark brownish or black soft rot girdles the stem at or near the soil surface, and the seedling dies. There is no recovery from these infections.

Rhizoctonia, and *Macrophomina* infections are seen as reddish brown lesions along one side of the stem, but these do not commonly girdle the stem completely. Below-ground lesions may also form on the upper portions of the main root. Plant growth is reduced in the early season; with improved growing conditions, affected plants commonly recover. With *Fusarium,* a generalized dry rotting of the roots may be seen as well as some reddening of the interior portions of infected roots.

Suggested seed treatments and diseases controlled are listed in the table. It is not a complete list but does serve for illustrative purposes. Check with local dealers to determine what products are available.

David Wysong
Extension Plant Pathologist

Diseases controlled	*Common name*	*Product name of fungicide*	*Comments*
Phytophthora/Pythium	Metalaxyl	Apron	
Pythium	Oxadixyl	Anchor	Suppresses early season Phytophthora
Rhizoctonia and other seedling diseases	PCNB	Several	
	Carboxin	Vitavax	
	Captan	Many	
	Thiram	Thiram	
	Thiabendazole	TBZ	Controls Phomopsis
	Captan + Maneb	Granox P-F-M	
	Captan + TBZ	Many	
	Captan + PCNB + TBZ	Rival	Controls Phomopsis
	Chloroneb	Chloroneb	
	Chloroneb + Apron	Nu-Flow AD	Controls water molds
	Thiram + Vitavax	Several	
	Bacillus subtilis	Kodiak	Use with a chemical seed treatment

Plant and Pest Diagnostic Clinic

Plant Pathology: Many spruce continue to arrive at the clinic with the vast majority of them showing severe injury but not due to pathogenic disease. Other samples included: anthracnose crown rot of alfalfa; crown rot on wheat; and powdery mildew on a rose.

Entomology: A few samples of clover mites from homes have been received. These tiny reddish pests overwintered in exterior walls of homes and have been migrating outdoors, where they feed on turfgrasses, clover and numerous other plants. Of course, many also get disoriented and crawl about on walls and cabinets in homes. This nuisance activity eventually subsides by mid-June at the latest. Since most of the mites concentrate about the exterior foundation, be observant for possible severe damage to adjacent herbaceous ornamentals and turf. For specific information on control, see NebGuide G93-1131-A, *Clover Mites and Their Management.*

Oystershell scale was identified in a sample of poplar from western Nebraska. This presents a good opportunity to encourage all growers and homeowners to be alert to scale activity in woody ornamentals. It is important to know when the "crawler" stage occurs, that is, when the young nymphs of the next generation have hatched and emerged from beneath the hard coverings of their parent scales. At this time, they are the most vulnerable and exposed to insecticidal sprays, including horticultural oils and insecticidal soaps. Estimated crawler emergence times for some common scales include mid to late May for pine needle scale, early June for oystershell scale, and late June for Fletcher scale in junipers and yew.

Diane A. Merrell
Coordinator, P&PDC
Jim Kalisch
Extension Technologist
Department of Entomology

Weather update

	Precipitation (%=percent of average) 5/7-5/13		9/1-5/13		Soil Temperature Summary Seven days ending on 4/29 Soil temperature in Fahrenheit @ 4 in			Growing Degree Day Accumulation For medium maturity wheat Ending 4/27		
	Act.	%	Act.	%	Ave.	Norm.	Dep.*	Actual	Normal	% +/- Norm
Ainsworth	0.00	0	11.48	104	63.7	61.6	2.1	401	511	-6
Alliance	0.00	0	5.18	68	60.4	59.3	1.0	468	508	-2
Beatrice	0.20	22	9.09	59	57.0	64.9	-7.9	654	730	-4
Concord	0.09	10	9.82	69	54.1	63.2	-9.1	690	551	-9
Elgin	0.02	2	8.67	67	59.1	62.9	-3.8	399	548	-8
Holdrege	0.00	0	9.12	79	58.9	63.1	-4.2	659	670	-1
McCook	0.00	0	7.70	78	66.2	62.2	4.0	714	642	4
Mead	0.04	4	6.13	39	58.5	64.5	-6.0	562	670	-5
North Platte	0.00	0	10.00	111	60.8	61.6	-0.8	653	618	2
Ord	0.00	0	8.45	64	59.8	63.2	-3.4	527	616	-5
Red Cloud	0.00	0	8.22	69	64.5	63.2	1.3	661	671	-1
Scottsbluff	0.00	0	3.36	45	58.7	59.4	-0.6	525	521	0
Sidney	0.00	0	5.84	74	57.8	59.3	-1.5	587	562	1
York	0.08	9	7.50	52	59.2	63.9	-4.7	560	642	-4

*Dep.=departure from normal

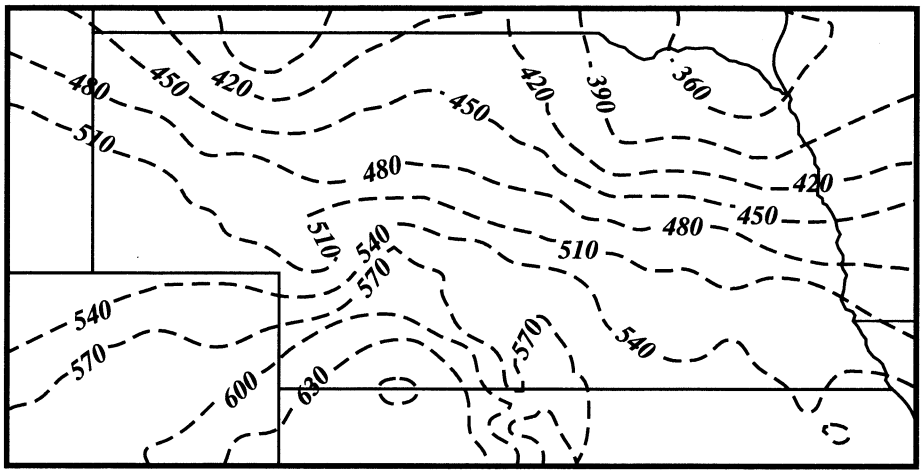
Pioneer donates soybean lines

Pioneer Hi-Bred International Inc. has donated experimental soybean lines valued at just over $1 million to the University of Nebraska Foundation to benefit NU's soybean breeding program.

The donation consists of small-seeded, food-grade soybean lines, or germplasm, and research information on these lines. Some of these lines are one or two years from commercialization; others are just entering the testing process.

The Pioneer donation was part of a food-grade soybean research and development program, which the company discontinued.

"The University of Nebraska has a vital, full-fledged food-grade breeding program," said Clark Jennings, Pioneer's soybean research manager. "This germplasm complements their efforts and ensures the public will benefit from the total research and development efforts."



Alfalfa weevil scouting

Base 48 growing degree days accumulated since Jan. 1. Noticeable alfalfa weevil feedingbegins after 375 growing degree days have accumulated. Alfalfa producers throughout Nebraska should be scouting for this pest.

Scout training *(Continued from page 73)*

agronomic problems will be detailed and irrigation scheduling will be demonstrated. There will be a $15 per person registration fee, which will cover the cost of materials and a noon meal. Field scout manuals will be available for $50. This meeting will qualify for CCA credit in each listed area.

Pre-registration prior to May 20 is requested for meal planning. For more information or to pre-register, contact Ron Seymour at the West Central Research and Extension Center, Rt. 4, Box 46A, North Platte, NE 69101, (308) 532-3611.

Ron Seymour, Extension Assistant, Integrated Pest Management
Barbara Ogg, Extension Educator, Lancaster County

Nitrogen can pay off for dry beans

Fertilization of dry beans results in increased yield when soils are low in available nutrients. Until recently, nitrogen fertilizers were not recommended for dry bean production in Nebraska if the yield goal of the preceding crop had been met. Recent studies, however, have shown significant yield increases to nitrogen fertilizers in soils that are low in available nitrogen.

Nitrogen

The following is an example from a trial on a soil testing quite low in available nitrogen (~25 lb/acre in surface 24-inch soil layer) at the Panhandle Research and Extension Center. Fertilizer nitrogen was applied at rates ranging from 0 to 120 lb/acre in 30-lb increments. Yields were increased by 500 lb/acre as fertilizer nitrogen rates increased from 0 to 60 lb/acre; there was no further increase in yields above 60 lb/acre.

General recommendations for nitrogen are to sample the 0- to 30-inch soil layer and apply fertilizer nitrogen if less than 100 lb/acre of nitrogen is present. Apply enough nitrogen so the sum of the nitrogen in the soil plus the fertilizer is equal to 100 lb N/acre.

Phosphorus

Phosphorus fertilization of dry beans is recommended when soil test levels are low (i.e., less than 16 ppm Bray P or 8 ppm Olsen P). Banded applications of phosphorus fertilizers are more efficient than broadcast applications. Using the planter to band the fertilizer near the row is an excellent method of applying phosphorus for dry beans.

Zinc

The only other nutrients of concern in most dry bean-producing areas of Nebraska are zinc and iron. Soils low in organic matter and high in pH (greater than 7.3) tend to be most susceptible to zinc and/or iron deficiencies. Evidence also suggests dry beans may be more prone to zinc deficiencies after sugar beets. If the DTPA soil test level is less than 1 ppm, zinc fertilization is recommended.

Iron

If dry beans have historically shown symptoms of iron deficiency (chlorosis) on a field, soil-applied iron fertilizers are not recommended. Three strategies can be used to manage these problem fields. The first is proper variety selection. Secondly, application of foliar fertilizer that contains iron, such as iron sulfate, more than once. Foliar fertilizers should be sprayed as soon as symptoms begin to appear and repeated to keep the new growth green. It is important to remember that the greater the symptoms of iron chlorosis, the harder it is to correct the problem. The third strategy is to grow a crop other than dry beans that is not as sensitive to iron chlorosis.

For more information on fertilizer recommendations for dry beans see: NebGuide G92-1102, *Fertilizer Management for Dry Edible Beans;* Regional Bulletin 562A, *Dry Bean Production and Pest Management;* and *The Bean Bag,* Spring 1997, Vol. 15 Number 1, pages 18-19, *Varietal Tolerance to Iron-Deficiency Chlorosis.*

Jim Schild, Extension Educator
Morrill County
David Nuland
Extension Horticulturist
Panhandle R&E Center

You asked about it . . .

A producer in southern Nebraska has alfalfa a year old, planted last fall, and planted this spring that has been damaged by Banvel and 2,4-D which drifted into the field.

The year-old alfalfa was about a foot tall and is laying down to about 6 inches. The alfalfa planted last fall is laying down and the new stand has its first true leaves appearing. What would you suggest?

Bruce Anderson, Extension Forage Specialist: Don't rush to harvest because that won't change the chemical uptake. However, if tops start to dry up and die, cutting plants may hasten recovery, if recovery is possible. To evaluate a stand, use the same criteria recommended for assessing winterkill in the May 2 *Crop Watch* — counting shoots and plant density.

There's still a chance of frost predicted. Would it help to run my pivot the afternoon before the predicted frost?

Probably not. **Ken Hubbard, director of the High Plains Climate Center,** noted that a variety of factors were involved: temperature, amount of water the system could apply, crop stage and degree of canopy development. It might have helped to have run it several days ago. Running it today, however, probably would not help because it does not water continually and would not be able to keep the leaves moist.

Paul Jasa, Extension Engineer, responded: Only pivots with drops which release the water below the pipe and truss rods could be operated when the temperature is below 38 degrees. Evaporative cooling of the water mist in the air will cause ice to form on the metal pivot parts and the weight will take down a pivot. If the water is released below the spans, ice formation is minimized, however, frost protection basically extends only to the portion of the field being watered or which had just been watered.

Roger Elmore, Extension Crops Specialist at the South Central R&E Center, adds: I would guess that wet soils would give a small measure of protection from frost, but I don't think the advantage offsets the risk of freezing up the sprinkler system. Some pivots are running to break up a soil crust and improve emergence. Be sure to shut down before temps drop.